Matthew Mendoza

CSC 174 - Advanced Database Management Systems

Dr. Yin Jin

March 3, 2023

Assignment 3

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Create Table Statements

Student Table

```
matthewmendoza2@ecs-...                        —    □    ×
mysql> CREATE TABLE Student
    -> (SSN CHAR(9),
    -> StudentName VARCHAR(30),
    -> Address VARCHAR(30),
    -> Email VARCHAR(30),
    -> PRIMARY KEY (SSN));
Query OK, 0 rows affected (0.04 sec)

mysql>
```

TA Table

```
matthewmendoza2@ecs-pd-proj-db:~               —    □    ×

mysql> CREATE TABLE TA
    -> (SSN CHAR(9),
    -> Salary INTEGER,
    -> FOREIGN KEY (SSN) REFERENCES Student(SSN));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

Course Table

```
matthewmendoza2@ecs-pd-proj-db:~               —    □    ×

mysql> CREATE TABLE Course
    -> (CourseNo VARCHAR(7),
    -> CourseName VARCHAR(20),
    -> NoOfStudents INTEGER,
    -> InstructorID VARCHAR(10),
    -> TASSN CHAR(9),
    -> PRIMARY KEY (CourseNo),
    -> FOREIGN KEY (TASSN) REFERENCES TA(SSN));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

Enrolled Table

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> CREATE TABLE Enrolled
    -> (SSN CHAR(9),
    -> CourseNo VARCHAR(7),
    -> GRADE CHAR(1),
    -> PRIMARY KEY (SSN, CourseNo),
    -> FOREIGN KEY (CourseNo) REFERENCES Course(CourseNo));
Query OK, 0 rows affected (0.04 sec)

mysql>
```

Instructor Table

```
matthewmendoza2@ecs...    —    □    ×

mysql> CREATE TABLE Instructor
    -> (Title VARCHAR(20),
    -> InstructorID VARCHAR(10),
    -> InstructorName VARCHAR(20),
    -> PRIMARY KEY (InstructorID));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

Classroom Table

```
matthewmendoza2@ecs-pd-p...    —    □    ×

mysql> CREATE TABLE Classroom
    -> (RoomNo INTEGER,
    -> Building VARCHAR(10),
    -> Capacity INTEGER,
    -> PRIMARY KEY (RoomNo, Building));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

OnlineCourse Table

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> CREATE TABLE OnlineCourse
    -> (CourseNo VARCHAR(7),
    -> URL VARCHAR(50),
    -> FOREIGN KEY (CourseNo) REFERENCES Course(CourseNo));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

InPersonCourse Table

```
matthewmendoza2@ecs-pd-proj-db:~                          —    □    ✕

mysql> CREATE TABLE InPersonCourse
    -> (CourseNo VARCHAR(7) REFERENCES Course(CourseNo),
    -> RoomNo INTEGER,
    -> Building VARCHAR(10),
    -> ClassTime VARCHAR(7) NOT NULL,
    -> FOREIGN KEY (RoomNo, Building) REFERENCES Classroom(RoomNo, Building));
Query OK, 0 rows affected (0.03 sec)

mysql>
```

Populate Database - Insert Statements

Create Data Entries for Table Students

```
matthewmendoza2@ecs-pd-proj-db:~                          —    □    ✕

mysql>
mysql> INSERT INTO Student
    -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (862494318,'Haruhi Fujioka','7098 Prince Ave','haruhi_fujioka@hostclub.com');
Query OK, 1 row affected (0.01 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                          —    □    ✕

mysql> INSERT INTO Student
    -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (539991337,'Tamaki Suoh','743 Arlington Lane','tamaki_suoh@hostclub.com');
Query OK, 1 row affected (0.01 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                          —    □    ✕

mysql> INSERT INTO Student
    -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (567556659,'Kyoya Ootori','756 Pennington Road','kyoya_ootori@hostclub.com');
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                              —    □    ✕

mysql> INSERT INTO Student
    -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (158901162,'Mitsukuni Haninozuka','142 Old Vernon St','mitsukuni_nozuka@hostclub.com');
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                              —    □    ✕

mysql> INSERT INTO Student
    -> (SSN, StudentName, Address, Email)
    -> VALUES
    -> (540915327,'Takashi Morinozuka','9245 Pineknoll Ave','takashi_nozuka@hostclub.com');
Query OK, 1 row affected (0.00 sec)

mysql>
```

Create Data Entries for Table TAs

```
matthewmendoza2@ecs...   —    □    ✕

mysql> INSERT INTO TA
    -> (SSN, Salary)
    -> VALUES
    -> (567556659, 10000);
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs...   —    □    ✕

mysql> INSERT INTO TA
    -> (SSN, Salary)
    -> VALUES
    -> (158901162, 20000);
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs...   —    □    ✕

mysql> INSERT INTO TA
    -> (SSN, Salary)
    -> VALUES
    -> (540915327, 30000);
Query OK, 1 row affected (0.01 sec)

mysql>
```

Create Data Entries for Table Courses

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> INSERT INTO Course
    -> (CourseNo, CourseName, NoOfStudents, InstructorID, TASSN)
    -> VALUES
    -> (12345, 'ADV DB MGT Systems', 90, 111111111, 567556659);
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> INSERT INTO Course
    -> (CourseNo, CourseName, NoOfStudents, InstructorID, TASSN)
    -> VALUES
    -> (23456, 'Data WHS & Mining', 3, 222222222, 567556659);
Query OK, 1 row affected (0.00 sec)
```

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> INSERT INTO Course
    -> (CourseNo, CourseName, NoOfStudents, InstructorID, TASSN)
    -> VALUES
    -> (34567, 'INTRO to PROB Theory', 33, 333333333, 158901162);
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> INSERT INTO Course
    -> (CourseNo, CourseName, NoOfStudents, InstructorID, TASSN)
    -> VALUES
    -> (45678, 'Computer Forensics', 23, 444444444, 158901162);
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    ×

mysql> INSERT INTO Course
    -> (CourseNo, CourseName, NoOfStudents, InstructorID, TASSN)
    -> VALUES
    -> (67890, 'DB MGMT Systems', 63, 111111111, 540915327);
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@ecs-pd-proj-db:~                          —    □    ×

mysql> INSERT INTO Course
    -> (CourseNo, CourseName, NoOfStudents, InstructorID, TASSN)
    -> VALUES
    -> (78901, 'INTRO MATH STATS', 39, 333333333, 540915327);
Query OK, 1 row affected (0.00 sec)

mysql>
```
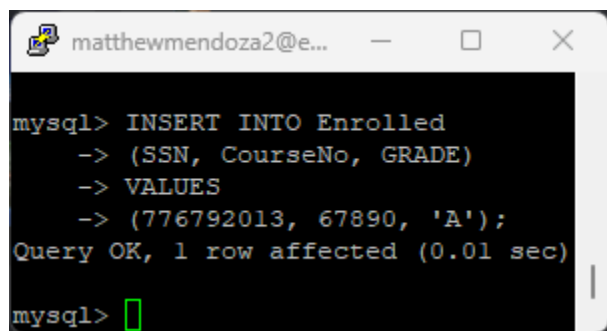
Create Data Entries for Table Enrolled

```
matthewmendoza2@ecs...     —    □    ×

mysql> INSERT INTO Enrolled
    -> (SSN, CourseNo, GRADE)
    -> VALUES
    -> (290937023, 12345, 'A');
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@e...     —    □    ×

mysql> INSERT INTO Enrolled
    -> (SSN, CourseNo, GRADE)
    -> VALUES
    -> (782438106, 23456, 'F');
Query OK, 1 row affected (0.01 sec)

mysql>
```

```
matthewmendoza2@e...     —    □    ×

mysql> INSERT INTO Enrolled
    -> (SSN, CourseNo, GRADE)
    -> VALUES
    -> (996958247, 34567, 'C');
Query OK, 1 row affected (0.01 sec)

mysql>
```

```
matthewmendoza2@e...     —    □    ×

mysql> INSERT INTO Enrolled
    -> (SSN, CourseNo, GRADE)
    -> VALUES
    -> (156836151, 45678, 'D');
Query OK, 1 row affected (0.00 sec)

mysql>
```

```
matthewmendoza2@e...

mysql> INSERT INTO Enrolled
    -> (SSN, CourseNo, GRADE)
    -> VALUES
    -> (776792013, 67890, 'A');
Query OK, 1 row affected (0.01 sec)

mysql>
```

Create Data Entries for Table Instructors

```
matthewmendoza2@ecs-pd-proj-db:~                     —    □    ×

mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
    -> VALUES
    -> ('Professor', 111111111, 'Ying Jin');
VALUES
('Professor', 222222222, 'Anna Baynes');

INSERT INTO Instructor
(Title, InstructorID, InstructorName)
VALUES
('Professor', 333333333, 'Xiaoyan Sun');

INSERT INTO Instructor
(Title, InstructorID, InstructorName)
VALUES
('Professor', 555555555, 'Haiquan Chen');

INSERT INTO Instructor
(Title, InstructorID, InstructorName)
VALUES
('Professor', 66666666, 'Herbert Mayer');
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
    -> VALUES
    -> ('Professor', 222222222, 'Anna Baynes');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
    -> VALUES
    -> ('Professor', 333333333, 'Xiaoyan Sun');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
    -> VALUES
    -> ('Professor', 555555555, 'Haiquan Chen');
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO Instructor
    -> (Title, InstructorID, InstructorName)
    -> VALUES
    -> ('Professor', 66666666, 'Herbert Mayer');
Query OK, 1 row affected (0.00 sec)

mysql>
```

Create Data Entries for Table Classrooms

```
matthewmendoza2@ecs...    —    □    X

mysql> INSERT INTO Classroom
    -> (RoomNo, Building, Capacity)
    -> VALUES
    -> (202, 'SQU', 30);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO Classroom
    -> (RoomNo, Building, Capacity)
    -> VALUES
    -> (101, 'RVR', 30);
Query OK, 1 row affected (0.01 sec)

mysql>
```

Create Data Entries for Table OnlineCourses

```
matthewmendoza2@ecs-pd-proj-db:~                    —    □    X

mysql> INSERT INTO OnlineCourse
    -> (CourseNo, URL)
    -> VALUES
    -> (12345, 'https://csus.zoom.us/j/97924806971');

INSERT INTO OnlineCourse
(CourseNo, URL)
VALUES
(23456, 'https://csus.zoom.us/j/7043055709');

INSERT INTO OnlineCourse
(CourseNo, URL)
VALUES
(45678, 'https://csus.zoom.us/j/99963148416');Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO OnlineCourse
    -> (CourseNo, URL)
    -> VALUES
    -> (23456, 'https://csus.zoom.us/j/7043055709');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO OnlineCourse
    -> (CourseNo, URL)
    -> VALUES
    -> (45678, 'https://csus.zoom.us/j/99963148416');
Query OK, 1 row affected (0.00 sec)

mysql>
```

Create Data Entries for Table InPersonCourses

```
matthewmendoza2@ecs-pd-proj-db:~                                    —    □    ✕

mysql>
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (34567, 202, 'SQU', '9:00 am');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (56789, 202, 'SQU', '12:00 pm');
ERROR 1406 (22001): Data too long for column 'ClassTime' at row 1
mysql>
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (67890, 101, 'RVR', '1:30 am');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO InPersonCourse
    -> (CourseNo, RoomNo, Building, ClassTime)
    -> VALUES
    -> (78901, 101, 'RVR', '2:00 pm');
Query OK, 1 row affected (0.01 sec)

mysql>
```

CREATE VIEWS

TAView

```
matthewmendoza2@ecs-pd-proj-db:~                                    —    □    ×

mysql> /* Create view for TAs */
mysql>
mysql> CREATE VIEW TAView As
    -> Select S.SSN, S.StudentName, S.Address, S.Email, T.Salary
    -> From    Student as S, TA as T
    -> Where   S.SSN=T.SSN;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> /* "Print" items in TAView */
mysql>
mysql> SELECT * FROM TAView;
+-----------+---------------------+----------------------+-------------------------------+--------+
| SSN       | StudentName         | Address              | Email                         | Salary |
+-----------+---------------------+----------------------+-------------------------------+--------+
| 567556659 | Kyoya Ootori        | 756 Pennington Road  | kyoya_ootori@hostclub.com     |  10000 |
| 158901162 | Mitsukuni Haninozuka | 142 Old Vernon St   | mitsukuni_nozuka@hostclub.com |  20000 |
| 540915327 | Takashi Morinozuka  | 9245 Pineknoll Ave   | takashi_nozuka@hostclub.com   |  30000 |
+-----------+---------------------+----------------------+-------------------------------+--------+
3 rows in set (0.00 sec)

mysql>
```

OnlineView

```
matthewmendoza2@ecs-pd-proj-db:~                                    —    □    ×

mysql> /* Create view for OnlineCourses */
mysql>
mysql> CREATE VIEW OnlineCourseView As
    -> Select  C.CourseNo, C.CourseName, C.InstructorID, C.NoOfStudents, C.TASSN, W.URL
    -> From    Course as C, OnlineCourse as W
    -> Where   C.CourseNo = W.CourseNo;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> /* "Print" items in OnlineCourseView */
mysql>
mysql> SELECT * FROM OnlineCourseView;
+----------+--------------------+--------------+--------------+-----------+----------------------------------------+
| CourseNo | CourseName         | InstructorID | NoOfStudents | TASSN     | URL                                    |
+----------+--------------------+--------------+--------------+-----------+----------------------------------------+
| 12345    | ADV DB MGT Systems | 111111111    |           90 | 567556659 | https://csus.zoom.us/j/97924806971     |
| 23456    | Data WHS & Mining  | 222222222    |            3 | 567556659 | https://csus.zoom.us/j/7043055709      |
| 45678    | Computer Forensics | 444444444    |           23 | 158901162 | https://csus.zoom.us/j/99963148416     |
+----------+--------------------+--------------+--------------+-----------+----------------------------------------+
3 rows in set (0.00 sec)

mysql>
```
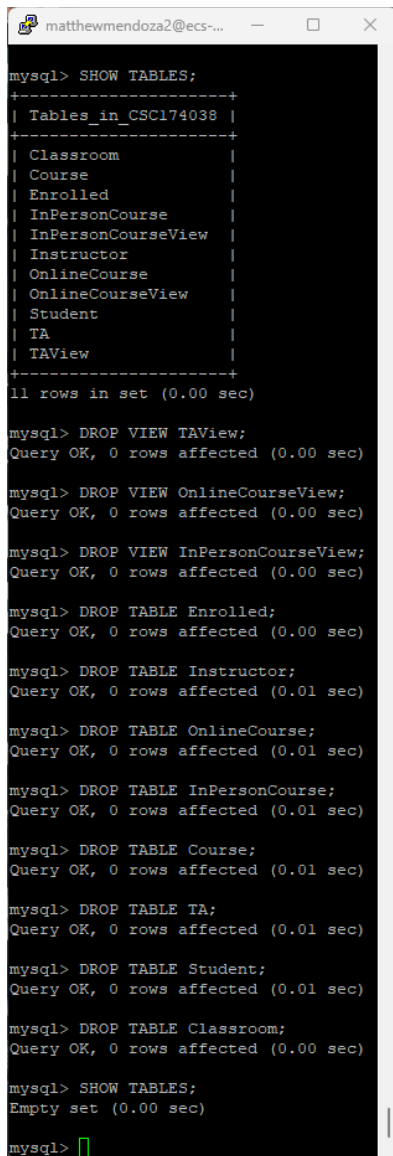
InPersonCourseView

```
mysql> /* Create view for InPersonCourses */
mysql>
mysql> CREATE VIEW InPersonCourseView As
    -> Select  C.CourseNo, C.CourseName, C.InstructorID, C.NoOfStudents, C.TASSN, T.ClassTime, T.RoomNo, T.Building
    -> From    Course as C, InPersonCourse as T
    -> Where   C.CourseNo = T.CourseNo;
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> /* "Print" items in InPersonCourseView */
mysql>
mysql> SELECT * FROM InPersonCourseView;
+----------+--------------------+--------------+--------------+-----------+-----------+--------+----------+
| CourseNo | CourseName         | InstructorID | NoOfStudents | TASSN     | ClassTime | RoomNo | Building |
+----------+--------------------+--------------+--------------+-----------+-----------+--------+----------+
| 34567    | INTRO to PROB Theory | 333333333  |           33 | 158901162 | 9:00 am   |    202 | SQU      |
| 67890    | DB MGMT Systems    | 111111111    |           63 | 540915327 | 1:30 am   |    101 | RVR      |
| 78901    | INTRO MATH STATS   | 333333333    |           39 | 540915327 | 2:00 pm   |    101 | RVR      |
+----------+--------------------+--------------+--------------+-----------+-----------+--------+----------+
3 rows in set (0.00 sec)

mysql>
```

Drop View and Table

```
mysql> SHOW TABLES;
+--------------------+
| Tables_in_CSC174038 |
+--------------------+
| Classroom          |
| Course             |
| Enrolled           |
| InPersonCourse     |
| InPersonCourseView |
| Instructor         |
| OnlineCourse       |
| OnlineCourseView   |
| Student            |
| TA                 |
| TAView             |
+--------------------+
11 rows in set (0.00 sec)

mysql> DROP VIEW TAView;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP VIEW OnlineCourseView;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP VIEW InPersonCourseView;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE Enrolled;
Query OK, 0 rows affected (0.00 sec)

mysql> DROP TABLE Instructor;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE OnlineCourse;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE InPersonCourse;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE Course;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE TA;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE Student;
Query OK, 0 rows affected (0.01 sec)

mysql> DROP TABLE Classroom;
Query OK, 0 rows affected (0.00 sec)

mysql> SHOW TABLES;
Empty set (0.00 sec)

mysql>
```

Initial Setup – self reference for future assignments

1. VPN, GlobalProtect, to the campus network using your SacLink account.

2. Use SSH to connect to the server. Type "**ecs-pd-proj-db.ecs.csus.edu**" as the host name.

   a. **If using MacOS:** ssh saclinkUserName@ ecs-pd-proj-db.ecs.csus.edu

3. Enter your SacLink user name and password

4. Then type the following command: mysql -h ecs-pd-proj-db.ecs.csus.edu -u dbUserName -p

      a. Use your professor assigned dbUserName; for example,

         mysql -h ecs-pd-proj-db.ecs.csus.edu -u CSC123456 -p

5. Enter your professor assigned password
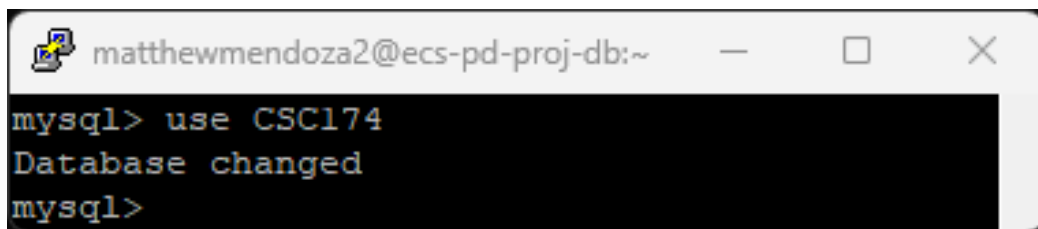
      a. **For example**: Csc134_123456789

6. Enter: use [provided dbUserName]

      a. **For example**

         mysql> use CSC123456

         Database changed

```
matthewmendoza2@ecs-pd-proj-db:~          —    □    ✕
mysql> use CSC174
Database changed
mysql>
```